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CURRENT PREVALENCE OF COMMUNICABLE DISEASES IN THE UNITED STATES¹

December 30, 1934—January 26, 1935

The prevalence of certain important communicable diseases, as indicated by weekly telegraphic reports from State health departments to the United States Public Health Service, is summarized in this report. The underlying statistical data are published weekly in the Public Health Reports, under the section entitled "Prevalence of disease."

Influenza.—The number of cases of influenza reported for the 4 weeks ended January 26 was 34,610—approximately 25,000 more than for the preceding 4 weeks. Each geographic area contributed to the increase. The wave of influenza which started in the eastern half of the country spread into the west during the current period, but the indications thus far are that the epidemic is distinctly minor and that the cases are of a mild character. For the week ended February 2, 10,252 cases were reported—about 500 more than for the preceding week. The weekly number of cases fluctuated considerably, but it is apparent that the weekly peak incidence has been passed in several of the affected States. Considered in geographic sections (table 1), the New England and Middle Atlantic area has distinctly passed the peak of the cases. The other eastern sections are probably at or have just passed the peak, but in the West the rates were still rising appreciably in the week ended February 2, the latest period for which data are available at this writing.

Compared with recent years the current incidence for the entire reporting area was about 4 times that for the corresponding period last year and almost 5 times the incidence in 1932. In 1933 an epidemic was in progress at this time and the number of cases for the corresponding period of that year totaled 122,143.

Each geographic area reported an increase over last year and also over 1932. Table 1 shows by geographic sections the number of cases

¹ From the Office of Statistical Investigations, U. S. Public Health Service. The numbers of States included for the various diseases are as follows: Typhoid fever, 48; poliomyelitis, 48; meningococcus meningitis, 48; smallpox, 48; measles, 47; diphtheria, 48; scarlet fever, 48; influenza, 44 States and New York City. The District of Columbia is counted as a State in these reports. These summaries include only the 8 important communicable diseases for which the Public Health Service receives regular weekly reports from the State health officers.

reported for recent weeks of this winter, with comparative figures for corresponding weeks in the three preceding winters.

TABLE 1.—Number of influenza cases reported in different geographic sections during recent weeks of the winter of 1934-35 and during corresponding weeks of the 3 preceding winters

Year	Week ended—									
	Dec. 1	Dec. 8	Dec. 15	Dec. 22	Dec. 29	Jan. 5	Jan. 12	Jan. 19	Jan. 26	Feb. 2
Total:										
1934-35.....	1,068	1,046	1,671	2,438	3,975	6,965	10,023	7,749	9,673	10,252
1933-34.....	1,481	1,431	1,311	1,105	1,158	2,061	2,804	1,943	2,201	2,714
1932-33.....	14,291	26,144	37,770	43,624	62,322	64,318	40,067	24,063	14,839	10,880
1931-32.....	859	1,009	888	628	1,122	1,242	1,550	1,931	2,553	5,048
New England and Middle Atlantic:										
1934-35.....	82	103	132	306	519	641	622	288	123	144
1933-34.....	55	60	77	54	55	83	63	65	99	62
1932-33.....	54	65	101	263	1,080	2,127	3,131	2,375	1,521	1,669
1931-32.....	46	33	45	35	52	76	137	257	553	208
East North Central:										
1934-35.....	125	81	161	133	500	394	1,436	578	673	1,195
1933-34.....	246	100	194	110	204	143	250	163	166	301
1932-33.....	384	901	2,067	2,408	5,513	8,947	6,083	3,539	2,226	1,018
1931-32.....	29	147	28	51	106	89	180	106	199	194
West North Central:										
1934-35.....	73	56	120	105	117	556	442	725	530	626
1933-34.....	9	14	10	11	15	27	30	46	69	73
1932-33.....	182	170	272	1,586	8,930	4,313	4,234	3,656	1,177	1,945
1931-32.....	10	8	9	9	10	20	14	12	70	163
South Atlantic:										
1934-35.....	282	331	548	835	1,967	3,514	4,861	2,851	3,586	2,783
1933-34.....	673	689	511	547	403	1,102	809	926	1,068	1,211
1932-33.....	918	3,361	5,928	4,869	7,904	13,191	9,153	7,484	5,484	4,042
1931-32.....	540	530	567	322	540	608	577	6,521	708	743
East and West South Central:										
1934-35.....	420	358	597	856	713	1,558	1,859	2,038	3,122	3,150
1933-34.....	361	441	424	271	374	568	1,542	665	677	935
1932-33.....	6,231	18,489	25,358	31,912	27,713	27,720	13,094	4,909	2,945	1,954
1931-32.....	117	167	125	93	178	256	383	296	373	1,060
Mountain and Pacific:										
1934-35.....	86	117	113	113	159	302	803	1,269	1,639	2,354
1933-34.....	137	127	95	112	107	128	110	78	102	132
1932-33.....	6,522	3,158	4,054	7,651	11,183	8,020	3,762	2,701	1,486	1,152
1931-32.....	117	134	174	118	236	193	259	606	650	2,690

¹ A similar table appeared in the Public Health Reports for Jan. 18, 1935, p. 72.

² The following numbers of cases, not included here, were reported in Kansas in response to a special inquiry: Week ended Dec. 24, 1932, 78,624; Dec. 31, 27,779; Jan. 7, 1933, 7,923; Jan. 14, 2,027.

Measles.—There were 54,707 cases of measles reported for the current period—approximately 24,000 more than were reported for the preceding 4-week period. For the country as a whole the incidence was the highest for this period in recent years. A comparison of geographic areas, however, shows that the disease was most prevalent in the New England, Middle Atlantic, and North Central sections. The States in the East North Central area reported 13,758 cases for the current 4 weeks, which was more than 4 times the number reported for the corresponding period last year; the West North Central group reported 13,452 cases—almost 3 times last year's figure. The South Atlantic, South Central, and Mountain and Pacific regions each reported a decrease of about 50 percent from last year's figures.

Scarlet fever.—The scarlet fever incidence was slightly higher during the current period than for the corresponding period last year and more than 4,000 cases above the average for recent years. For the entire reporting area the number of cases totaled 24,469. The disease was most prevalent in the East North Central and Mountain sections. In the former area the number of cases (9,700) represented an increase of 50 percent over the corresponding period last year, while in the latter area the number of cases (1,443) was more than 5 times that of last year. Other areas closely approximated the incidence of recent years.

Typhoid fever.—The incidence of typhoid fever continued to decline. For the 4 weeks ended January 26 the number of cases reported was 629, slightly below the number reported for the corresponding period last year. For this period in 1933 and 1932 there were 735 and 923 cases, respectively. The disease was less prevalent than last year in all regions except the North Central, where it was slightly higher, and the New England and Middle Atlantic, where it was practically the same as last year.

Diphtheria.—The number of cases of diphtheria (3,385) reported for the 4 weeks ended January 26 was about 80 percent of that for the corresponding period in each of the 2 preceding years and less than one-half of the number in 1932. Decreases in the various geographic areas ranged from 10 percent in the New England and Middle Atlantic to 40 percent in the South Central areas. In the East North Central and Mountain and Pacific regions the incidence closely approximated that of last year.

Meningococcus meningitis.—The number of cases of meningococcus meningitis increased more than 50 percent during the current 4 weeks over the preceding 4-week period. The number of cases (307) was also about 50 percent in excess of that for the corresponding period last year. For this period in 1933 and 1932 the numbers of cases were 262 and 314, respectively. All sections of the country contributed to the increase. In the West North Central and South Atlantic areas the current incidence was more than twice that for the corresponding period last year, and in other regions the increase ranged from 25 percent in the Middle Atlantic region to 50 percent in the East South Central section. States in the various areas reporting a large number of cases, in comparison with last year, were Ohio (34), Tennessee and Virginia (19 each), Kentucky (10), New Mexico (9), and Montana (7). In the New England and West South Central areas the incidence was about on a level with last year.

Poliomyelitis.—The incidence of poliomyelitis continued to decline through the month of January. For the 4 weeks ended January 26 118 cases were reported. This figure represented an increase of approximately 20 percent over last year's figure for the same period

and about 30 percent over the number of cases for the corresponding period in 1933. California, in the Pacific region, continued to report cases somewhat above the expectancy (52 for the current period as against 18 for this period last year), but other States in that region, as well as those in other areas, reported about the normal seasonal incidence.

Smallpox.—Increases in smallpox were reported from States in the Mountain, Pacific, West North Central, and South Atlantic regions. In the State of Washington the number of cases increased from 152 for the 4 weeks ended December 29, 1934, to 296 for the current period; in Wyoming, from 19 to 44; in Nebraska, from 53 to 98, and in West Virginia, from none to 14. The South Central areas reported practically the same incidence as that for the preceding period, and the East North Central States showed a 20 percent decrease.

The same States seemed mostly responsible for very significant increases in certain sections over the corresponding period last year, as well as more than 50 percent increase in the number of cases for the entire reporting area. For the 4 weeks ended January 26 there were 751 cases reported. For this period in 1933, 1932, and 1931 the cases totaled 642, 2,084, and 4,296, respectively.

Mortality, all causes.—The average mortality rate from all causes in large cities for the 4 weeks ended January 26, as reported by the Bureau of the Census, was 13.3 per 1,000 inhabitants (annual basis). For the corresponding period in the 3 preceding years the rate was 12.6, 13.1 and 12.3, respectively. The presence of the minor influenza epidemic, previously discussed, was no doubt responsible for the slightly higher rate; the peak rate of 14 occurred in the week ended January 12, 1935, with a rapid decline to 12.5 for the week ended January 26.

MOTTLED ENAMEL IN CATTLE

By H. TRENDLEY DEAN, *Dental Surgeon, United States Public Health Service*

During the past 20 years numerous articles reporting the development of human mottled enamel in various areas of the United States have appeared in the literature. The development of an analogous pathology in certain domestic animals has been largely overlooked. In this connection, therefore, the work (1) of North African investigators becomes of interest because of its important bearing on mottled enamel investigations.

LE DARMOUS

In various rock phosphate areas of North Africa, principally Algeria, Tunisia, and Morocco, a hypoplasia of the permanent teeth known as "le darmous" is endemic. These endemic areas apparently

have sharply defined geographical limits, and both human beings and certain domestic animals in the area are affected. Since sheep, cattle, and other animals affected with *le darmous* were sold only with difficulty, the problem became one of considerable economic consequence. As a result, the subject was studied for a number of years at the Pasteur Institute in Algiers and the Research Laboratory of the Service of Animal Husbandry of Morocco.

Because of the large number of animals affected, the North African research has apparently been carried on solely by veterinary surgeons, such as, to mention a few, Velu, Balozet, and Claudon. The fact that *le darmous* likewise affects the human inhabitants of an endemic area has been noted by these workers. As the study advanced the epidemiology and the animal experiments revealed what is apparently the etiological factor. Velu (2) thereupon called the attention of the medical profession to its relation to the public health.

Velu (1) states that *le darmous* in the human being is a dental dystrophy endemic among the inhabitants of certain rock phosphate regions. He quotes from Claudon in describing the lesion found in the children, namely, that the modifications of the structure of the enamel are very constant, the teeth erupting through the mucosa being dull, rough, or uneven. After eruption the teeth change color, first to yellow and then to brown, the coloration extending by degrees and including in time even the cusps and incisal edges. These colorations are more frequently present on the incisors than on the molars.

In his epidemiological study Velu noted that if the children are removed from the influence of certain waters during the period of tooth formation the permanent teeth erupt showing normal structure. One illustration is a reference to the conditions prevailing in the village of Beni Meskine. There the children who accompany their sheep-herding parents each winter into the Chaouia are apparently free from *le darmous*, while those children of parents who remain at home throughout the year and drink continuously of the same water show the dystrophy in all of their teeth. This North African study suggested that *le darmous* was endemic only in the areas of natural phosphate deposits.

A series of animal experiments using both the white rat and the sheep conducted by Velu (3), and Velu and Balozet (4), indicated that *le darmous* was caused by the ingestion of small amounts of fluorine present as a fluoride in the drinking water as a result of its passage over or contact with the beds of natural phosphate. The latest report (5) of Velu suggests that, in some instances, *le darmous* may be developing as the result of using water obtained from deep-drilled wells. The particular well referred to is approximately 500 feet deep. It should be noted at this time that in the United States

mottled enamel is frequently found associated with the use of water from deep wells (6).

The certainty that le darmous and mottled enamel are one and the same disease was inferred by the present writer in 1932 (6), concurred in independently by Velu (7) in 1933, and affirmed in 1934 by Munoz (8), in an article relating to "dientes veteados", the name by which mottled enamel is known in the Argentine.

MOTTLED ENAMEL IN CATTLE

The observation of mottled enamel in cattle in this country has been reported previously (9). During a survey in Horry County, S. C., mottled enamel was noted in the permanent teeth of certain dairy cows that drank continuously of artesian waters showing a high fluoride content. Two of the three waters associated with the mottled enamel in animals in this area were analyzed by Elvove (10) and found to contain 4.5 parts per million of fluorine. Water from the third well was not analyzed, but children of the household who had always used the same water showed a moderately severe type of mottled enamel. In all three of these instances the second laterals and corner teeth of the animals were more severely affected than the centrals and first laterals.

Chauveau (11) states that the permanent incisor teeth of the ruminants erupt as follows:

Teeth	Deciduous	Permanent
Centrals.....	Before or some days after birth.....	1½ years.
First laterals.....	do.....	2½ years.
Second laterals.....	14 days.....	3½ years.
Corners.....	2 to 3 weeks.....	4½ years.

During a recent survey in Texas, mottled enamel in cattle was again observed. Through the courtesy of E. W. Little, D. V. M., a dozen skulls of range cattle just slaughtered in an Amarillo abattoir were examined. Mottled enamel was definitely demonstrable on the incisor teeth of 4 of these specimens, 2 showing the white opaque type and 2 the brown stain, the latter a form of mottled enamel rather common among persons in Amarillo and the adjacent territory to the south and west. In all of these four specimens, the second laterals and corner teeth were apparently more severely affected than the earlier erupted teeth.

DISCUSSION

The observations of mottled enamel in cattle referred to naturally raise two important questions. First: Is the phenomenon noted in North Africa (5) with respect to its effect on growth in weight also

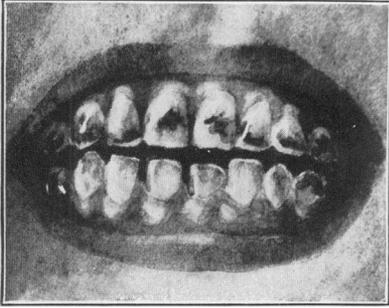


FIGURE 1.—Human mottled enamel. (Moderate, with brown stain.)

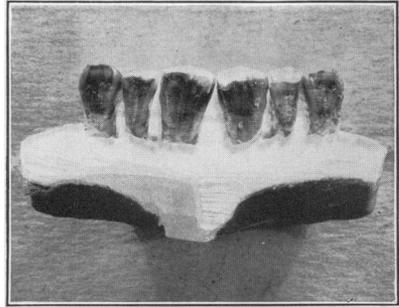


FIGURE 2.—Human mottled enamel. (Courtesy of Dr. C. D. Wofford, Plainview, Tex.)



FIGURE 3.—Le darmaous in cattle as reported by Velu in North Africa. (Arch. Inst. Past., Algiers, Vol. X, No. 1, March 1932.)

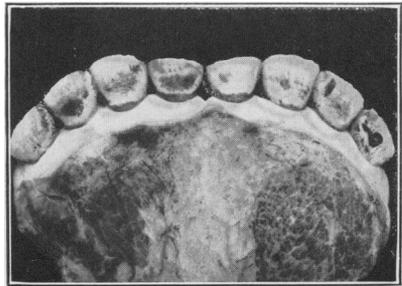


FIGURE 4.—Bovine mottled enamel, with brown stain, apparently developed near Amarillo, Tex.

operative in cattle in such range country as the Panhandle and West Texas? Among the human inhabitants of this region mottled enamel is endemic over a wide area. Both the human beings and stock are largely dependent on water from drilled wells. Based on the widespread distribution of mottled enamel among the people of this section, it appears that stock have few water supplies available that are free of toxic amounts of fluorides.

The second question that naturally arises is: Would the continued ingestion by dairy cows of waters containing appreciable amounts of fluorides result in a milk with a high fluoride content? This question should be thoroughly investigated because of its possible relation to an increased intake of fluorides by the growing child in an endemic area. Experiments on cattle in which the fluoride is incorporated in the ration are not comparable to conditions producing mottled enamel in the human beings. Mottled enamel, in the light of present knowledge, is a water-borne disease, and the experimental approach should simulate this condition. Experiments (12) (13) conducted by the United States Public Health Service have shown, at least with respect to white rats, that a given concentration of sodium fluoride in the drinking water produced a more toxic reaction than the same concentration of sodium fluoride in the diet.

SUMMARY

1. An additional area, West Texas, showing mottled enamel in cattle is reported.
2. The economic consequence of a wide-spread fluorosis in stock may be a problem of some significance in animal husbandry.

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THE FAMILY SURVEY AS A METHOD OF STUDYING RURAL HEALTH PROBLEMS¹

Brunswick-Greenville Health Administration Studies No. 3

By ELLIOTT H. PENNELL, *Assistant Statistician, United States Public Health Service*

In a recent paper by Mountin² the plan adopted by the Office of Studies of Public Health Methods for the analysis of rural health work was described. Certain subjects dealing with county health problems logically presented themselves. These subjects were indicated for special study, and they may be listed as follows:

1. Health problems of people in representative counties;
2. Quality and quantity of service performed by county health departments;
3. Relationship of county health department service to health problems of the people; and
4. Effect of health department service on individual health problems.

According to the paper referred to, the first subject is being studied with the aid of an actual canvass of families, the second will make use of an analysis of the records of the work of the health department personnel, the third will require a comparison of the conditions determined from the family canvass with those revealed by the analysis of health department records, and the fourth will depend upon specially designed studies of specific activities of the health department.

One of the activities of the Office of Studies of Public Health Methods is the development of plans of study which may be adopted

¹ From the Office of Studies of Public Health Methods in cooperation with Division of Domestic Quarantine.

² Mountin, Joseph W.: Effectiveness and economy of county health department practice. *Pub. Health Rep.*, vol. 49, no. 42, Oct. 19, 1934.

and used by local administrators in their endeavor to increase the effectiveness of their own programs through a better understanding of the problems with which they have to deal. As numerous requests have been received for assistance in planning surveys of rural families for various purposes, it has appeared desirable to describe in some detail the survey methods developed by the office and used in the rural areas selected. Particular reference is made to the collection of data by the method of canvassing carefully selected samples of families and the subsequent analysis of the data so collected.

The material to be discussed in this paper may be conveniently classified under five heads:

1. Type of family data sought;
2. Schedule used in family survey;
3. Selection of the families to be surveyed;
4. Method of conducting the surveys; and
5. Representativeness of the survey data.

TYPE OF FAMILY DATA SOUGHT

It might be thought that a comprehensive picture of family problems and service might be obtained from health department records and information compiled by other agencies. However, when such data are examined it becomes apparent that many of the required comparisons cannot be made, because the records were not so designed.

The program of a health department presumably deals with the problems arising from the area it serves, through contact with the individuals, the families, and the homes in which they live. To analyze the work of the health department from the point of view of its quality, effectiveness, and adequacy requires some picture of the population as a whole, in respect of such items as the age, sex, and color of the individuals, the size and distribution of the families, the sanitation of the premises, and illnesses and needs for medical and nursing care in the families. At the same time, it is necessary to determine in a general way the nature of the problems requiring services of the various health department agencies, and how well these needs are being met.

The records of the work of the various members of the health department staff may indicate the extent and distribution of the services comprising the program and at the same time give the needs of the population as expressed in the demands made for service. But the problems of the area cannot be defined by an analysis of such records alone, because they do not provide information on those persons or families in need of service who have not come to the attention of the health department.

The work of the health officer is shown by an analysis of his records. Much of his time, however, is devoted to administrative and super-

visory functions, and the group of individuals and of families served directly by him are selected by the nature of the services his program is designed to provide. If emphasis is placed on inspections and immunizations of school children, the individuals seen will be largely in the school-age group, and the families receiving service will be those having children. Where clinics for medical treatment are a part of the health department program, the age group served will be influenced by the type of problem involved; for example, a large venereal-disease or maternity clinic will bring about contacts with many adults, while infancy and preschool clinics serve other particular age groups.

The nurse may provide a generalized type of service, but her work may be weighted by one or more special activities. In home visits, the nurse considers the family as a whole, but she is likely to center her attention around some problem associated with, for example, communicable disease, tuberculosis, infancy, or maternity. While the service in homes represents the response by the nurse to needs within the family, the individuals receiving such service are only persons who present problems. Family data, however completely it may be obtained for such a group, cannot represent families of all types in the area.

Inspection of premises makes up a large part of the sanitation officer's work. His program may be a general one, including supervision of dairies, food-dispensing establishments, control of private water-supply and excreta-disposal facilities, or it may be confined almost exclusively to some special problem such as privy sanitation; the emphasis, however, is always on the premises, with descriptive data for the family being quite secondary.

If it were possible to relate all the service rendered by a health department to the home environment of the individuals receiving it, the result would not be a cross-section of all elements in the area. But it is not possible from the usual administrative records which are available to determine the home environment of the persons served. Where school work is a responsibility of the health department, many of the contacts of the health officer and the public health nurse are through group activities in the schools. Such activities involve the weighing and measuring of children, inspections for communicable disease, and immunizations; and the usual health department record made for such services indicates only the number of children seen, the date, and the type of service rendered. In the sanitation work, where the problem is largely one of improvement of the sanitary condition of the premises, records provide little more than a statement as to the nature of the problem which was the object of the visit, the name of the owner or occupant, and the location of the home.

Thus it may be seen that an analysis of the records of the work of the various members of the health department cannot give a picture of the population residing in the area.

Some description of the population is given by the United States census figures. The tabulations for county areas show the distribution of the population according to age, sex, color, and minor civil division of residence. Certain data on the size of the families, sources of income, and types of farms are also available. These data give a general picture of the area, but they cannot be related to the health department services received by the family to show the relationship of service to need. Such a procedure requires that information be gathered simultaneously concerning the population, its problems, and the services rendered.

To obtain such data requires special study, and the family survey was selected as the method to secure them. By going to the home, first hand data are obtained from the families as to their home environment, the problems they might have presented, and any services they might have received.

Because of the prohibitive expense, it is obviously impracticable to interview all the families in the area. This factor of expense, however, does not necessitate discarding the survey method; since it is reasonable to postulate that a sample of families properly selected and adequate in size might give essentially the facts that would be obtained from a complete census, and at only a small fraction of the cost.

The method of survey requiring the canvassing of selected families of adequate number has been adopted, and, in fact, has not only been used with success in Brunswick and Greensville Counties in southern Virginia, but is now being applied in Fairfax County, Va., in Montgomery County, Md., and in the rural part of Forsyth County, N. C.

The surveys now being conducted have been under the direct supervision of the writer from the outset, while the Office of Statistical Investigations of the United States Public Health Service provided the necessary supervision in the Brunswick-Greensville area. The discussion of the method of selecting the families and the manner of conducting the surveys is based on the three surveys now being made, but the plan follows closely the procedure previously adopted for the first area.

SCHEDULE USED IN THE FAMILY SURVEY

To insure the collection and recording of comparable data, a thoughtfully devised schedule is required. It is of paramount importance that the schedule be carefully made and that particular attention be directed to the matter of completeness, and to the exclusion of extraneous items and expressions of an ambiguous nature. It

Family Name _____ Household Head _____ Race _____ Serial Number _____
 Address _____ Township or District _____ VII _____ of O. C. _____
 Street or Road _____ Bented _____ Rent _____ Light _____
 No. in _____
 Refrigerator: Spring or well _____ Radio _____ Telephone _____ Automobiles: Number _____ Make _____ Year _____
 Occupation of Household Head _____
 Economic Status: Comfortable _____ Moderate _____ Poor _____ Very Poor _____ Total family income for past year \$ _____
 Source of Income: Father _____ Mother _____ Other _____
 Work Relief: Type _____ Amount _____
 Other Relief: Food _____ Clothing _____ Medical _____ Agencies supplying same _____
 Sanitary Conditions: General Cleanliness: Good _____ Fair _____ Poor _____
 Water Supply: City supply _____ Well _____ Spring _____ Cistern _____ Other _____
 Excuse Deposits: City Sewer _____ Private Cesspool or Septic Tank _____ Privy _____ News _____
 Screening of Homes: Fly Proof _____ Partly Screened _____ None _____
 Milk Supply: Amount used daily _____ qt. Home produced _____ Bought _____ Canned _____ Pasture _____
 Grade of Milk: A _____ B _____ Does milk supply come from tuberculosis tested cows? _____
 Sources: For own use _____ sells produce also _____ cans vegetable for winter use _____
 Magazines kept regularly _____ Newspapers: Daily _____ Received from _____
 Public health literature read during year: Subject _____ Received from _____
 Public health meetings attended during year: Number _____ Place _____ Instructor _____
 P. H. Classes: Type _____ Place _____
 Family physician: _____ Address _____
 Notes: _____
 Date schedule was taken _____ Informant's No. _____ Surveyor _____

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FIGURE 1.—Schedule used by the field canvassers (Front).

is important also that the canvasser be instructed to enter a definite statement for every item; should the information be unknown for a particular item, the fact that it is unknown should be so stated, since a blank space following an item is meaningless.

The survey form used is shown in figures 1 and 2. One side of the schedule, figure 1, includes the descriptive items for the family and for the premises where they lived at the time they were interviewed. The entries in the first two lines identify the family by name, color, and location of the home. The number of rooms is noted, and such matters as the type of light and heat used, and whether or not the family had a radio, telephone, or automobile are recorded as an index of economic status. The occupation of the household head, all income to the family, and relief received from any source are noted. The source of water supply and the type of excreta disposal are checked for each home, as well as data on screening, milk supply, and gardens. In addition, an attempt is made to obtain a list of magazines read, of health department literature received, and of health meetings or classes attended.

The reverse side of the form, figure 2, provides for recording the name, sex, relation to the household head, and date of birth for each person who was in the household at any time during the year preceding the visit. Space is provided for recording all illnesses causing confinement to bed or inability to pursue the usual activities, together with any type of service received from a doctor, nurse, or other private attendant, or from any health department representative. For each illness recorded, there is space to enter the number of days in a hospital; the number of visits to or by a medical attendant in the home, office, or clinic, and the number of days of nursing care. Where there was an illness without medical attendance, the family is questioned as to why no doctor was consulted. For each individual having any contact with the health officer, sanitation officer, or public health nurse, an entry is made to show who was seen, the place where the contacts were made, the number and purpose of the visits, the services rendered, and any recommendations that were made. Communicable disease and immunization histories are obtained for each individual in the household.

SELECTION OF THE FAMILIES TO BE SURVEYED

From past experience, about 10 percent of a population may be considered a sufficient sample to provide reasonably adequate information on any but the unusual and infrequent situations, but it is desirable that not less than 900 or 1,000 families be interviewed. A smaller group than this does not provide sufficient numbers to permit of subdivision and comparison within the sample. Such a sample, to be representative of the area from which it is drawn, however, must

obviously include all the essential elements of the population in proportions at least roughly equivalent to the percentages of those elements in the total population.

Before the selection was made, the available census figures for a county were examined, and the approximate number of white and colored families required to make up a sample of the desired size was determined for the minor civil divisions and for the incorporated towns and villages; homes on certain streets or blocks of streets were chosen to represent that particular type of community home. In addition, numerous sections were outlined on the map that included, for the different rural areas, families representative of their social, economic, and environmental status. The size and location of these rural sections were adjusted to give a proper proportion of families living in small crossroad settlements, along improved highways, and on isolated farm premises.

METHOD OF CONDUCTING THE SURVEYS

In securing social data of any type, it is quite necessary that people be employed who have some familiarity with the data they are to get and who are capable of eliciting proper response on the part of the person interviewed. Field workers were secured who possessed such qualifications and who had worked for several months in this or in associated offices on studies based on data from family survey schedules, and were therefore familiar with the problems which arise in the classification of such data. Another consideration, perhaps equally important, was the preparation of a clear, concise set of written instructions and definitions of all items on the schedule, for the guidance of the field workers.

To insure as uniform an approach as possible, a person was secured who had a background of several years' experience in going to homes and obtaining family data. After the schedule, instructions, definitions, and general objectives of the survey were explained, a series of families were interviewed, and a systematic order of questioning was decided upon which seemed best adapted for obtaining the information sought. Instructions or definitions which proved difficult to interpret were clarified at this time. The field canvassers were sent into the field with this person for a preliminary training period of several days before being assigned to an area.

Throughout the surveys, daily reports are sent to the central office, and all schedules are collected and examined at regular intervals. Any incomplete or inconsistent record is returned to the canvasser for correction. As new questions arise, they are submitted to the person in charge for final decisions, who informs all workers of the procedure to be followed when similar situations arise in their work.

Before leaving one area for another the worker is required to have seen every family in that area and to have obtained either a completed schedule or a refusal. It might be said that refusals are met with in only a small fraction of 1 percent of all the families interviewed.

REPRESENTATIVENESS OF THE SURVEY DATA

After the surveys are completed, the data are coded and punched on cards for mechanical tabulation. This has been done for the Brunswick-Greenville County records, and the discussion which follows will be based on tabulations from that survey. It illustrates

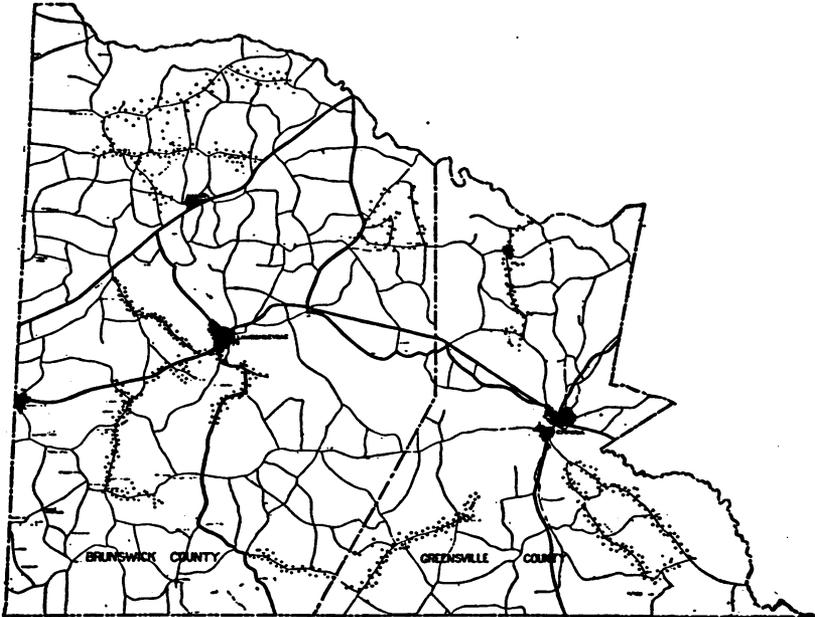


FIGURE 3.—Distribution of the 1,009 families residing in the representative areas selected in Brunswick and Greenville Counties who were interviewed by the field canvassers.

the checks on the reliability of the method and its utility for defining the health problems in a rural area.

Figure 3 shows a map of Brunswick and Greenville Counties, Va., each dot representing a family from whom data were obtained.

In table 1, comparative figures from the 1930 United States census and from the surveyed group of families in Brunswick and Greenville Counties are given. Approximately 15 percent of all the families and 17 percent of all individuals in the 2 counties were included. In the 1930 census, the families and the population were subdivided into rural-farm and rural-nonfarm on the basis of replies to a question reading, "Does this family live on a farm?" In the sample of families, the classification was based on the principal source of income, the group of farm families including only those residing in the

country and considering the farm as their principal source of income. Assuming that the two classifications are roughly comparable, it may be seen that 11 percent of the farm families and 22 percent of the nonfarm families were interviewed. The percentages of the individuals in each of these groups who were included in the sample were 13 and 26, respectively. It was necessary to get a high percentage of Lawrenceville and Emporia families to insure a sample of town families large enough for comparison with those living in isolated homes; this accounts for the higher percentage of nonfarm homes included in the sample. While there was some lapse in time between the census and the survey, it seems improbable that this could render the data incomparable.

TABLE 1.—Percentage of the farm group, the nonfarm group, and the total population included in the surveyed sample of families in Brunswick and Greenville Counties

	Families			Persons		
	United States Census 1930, total	Surveyed sample		United States Census 1930, total	Surveyed sample	
		Number	Percent of total		Number	Percent of total
Farm group.....	4,501	507	11.3	24,388	3,174	13.0
Nonfarm group.....	2,232	502	22.5	9,486	2,456	25.9
Total.....	6,733	1,009	15.0	33,874	5,630	16.6

The surveyed sample included approximately 17 percent of the total population in the area and about the same percentage in each of the two counties as is shown in table 2. A slightly higher percentage of the white than the colored was included, there being 18 percent of the former and 15 percent of the latter. In Brunswick County practically the same percentage of white and colored families was interviewed, about 17 percent, but in Greenville County, 21 percent of the white, as compared with 14 percent of the colored, were included.

TABLE 2.—Percentage of the white and colored population included in the surveyed sample of families in Brunswick and Greenville Counties

	White			Colored			White and colored		
	United States Census total	Surveyed sample		United States Census total	Surveyed sample		United States Census total	Surveyed sample	
		Number	Percent of total		Number	Percent of total		Number	Percent of total
Brunswick County.....	8,994	1,531	17.0	11,492	1,891	16.5	20,486	3,422	16.7
Greenville County.....	5,259	1,063	20.6	8,129	1,125	13.8	13,388	2,208	16.5
Total.....	14,253	2,614	18.3	19,621	3,016	15.4	33,874	5,630	16.6

The age distribution of the white and colored population in the two counties in 1930 and as shown by the surveyed group of families is given in table 3. The census indicates a slightly higher proportion of children under 10 years of age, but the difference is of a low order of significance.

TABLE 3.—*Distribution of the white and colored population in Brunswick and Greenville Counties according to the 1930 United States census and as found in the surveyed sample of families*

Age group	United States census				Surveyed sample			
	White		Colored		White		Colored	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under 1.....	295	2.1	511	2.6	62	2.4	87	2.9
1-4.....	1,283	9.0	2,203	11.2	221	8.5	313	10.5
5-9.....	1,766	12.4	3,172	16.2	287	11.0	424	14.3
10-14.....	1,799	12.5	2,947	14.5	323	12.4	445	15.0
15-19.....	1,600	11.2	2,512	12.8	309	11.9	411	13.8
20-24.....	1,196	8.4	1,515	7.7	243	9.3	288	9.7
25-29.....	955	6.6	1,116	5.7	182	7.0	162	5.4
30-34.....	885	6.2	841	4.3	162	6.2	140	4.7
35-44.....	1,630	11.4	1,821	9.3	295	11.3	252	8.5
45-54.....	1,365	9.5	1,559	7.9	238	9.1	219	7.4
55-64.....	883	6.2	861	4.4	174	6.7	132	4.4
65-74.....	484	3.4	477	2.4	71	2.7	66	2.2
75 and over.....	161	1.1	183	0.9	37	1.4	36	1.2
Total of known age.....	14,292	-----	19,618	-----	2,604	-----	2,975	-----

Table 4 shows the distribution of the families in the two counties by size, according to the United States census and as found in the sample of families. In 1930, 4.7 percent of the total families had but one individual, and 15.9 percent were two-individual families; whereas, the sample included but 1.7 percent of the former and 12 percent of the latter. The most frequent size of family was three individuals in both the census distribution and the surveyed group. The median size was 4.4 in the former and 4.9 in the latter. In the census count, the family unit included only related persons living together; whereas, in the sample the household was the unit and included all persons living together under the same roof and eating at the same table. While this may account in part for the difference noted, there seems to have been a real selection of larger families. The average size of family for the census population and for the sampled families was 5.0 and 5.6, respectively.

Aside from a deficiency of small families and the relatively high percentage of village homes, the distribution of the population in the sample of families is remarkably similar to that of the total for the counties as shown by the United States census tabulations.

TABLE 4.—*Distribution of families in the total area and in the surveyed sample classified according to the number of individuals in the household*

Number of individuals in the household	1930 United States census		Surveyed sample	
	Number	Percent	Number	Percent
1.....	315	4.7	17	1.7
2.....	1,072	15.9	121	12.0
3.....	1,129	16.8	163	16.2
4.....	964	14.3	154	15.3
5.....	836	12.4	137	13.6
6.....	678	10.1	140	13.9
7.....	577	8.6	79	7.8
8.....	438	6.5	81	8.0
9.....	301	4.5	49	4.9
10.....	209	3.1	27	2.7
11.....	102	1.5	24	2.4
12 or more.....	112	1.7	17	1.7
Total.....	6,733		1,009	

Apart from the survey of families, studies are being made which involve the collection of records of the work done by the health department over a period of several months. In Brunswick and Greenville Counties this study of the work of the health department personnel was begun shortly before the survey had been completed. The analysis of these records is now being made, and the work of the sanitation officer has been described in a recent paper of this series.³ Certain of the findings may be compared with the service reported by the families, and such data are introduced here as another test of the representativeness of information obtained in this way. If it may be assumed that the work of such an official does not vary in content to any marked degree from one year to the next, a comparison of the distribution of services rendered by the sanitation officer, as disclosed by the health department records, with that reported by the families should indicate roughly the completeness with which such data were obtained by the canvass. The description of the work of the sanitation officer was based on a 6-month period, while the sample covered 12 months of service. The percentages of the sampled homes reporting service were therefore divided by 2 to give figures which might be compared to those from the health-department records. While the description of the sanitation work in the area shows that return visits were made to many homes, this comparison should indicate roughly the completeness with which service was reported to the canvassers.

In table 5 are given certain percentages for household premises visited during a 6-month period as estimated from the survey of homes and as given in the description of the sanitation officer's work.

³ Dean, J. O., and Mountain, J. W.: Job analysis of a rural sanitation officer, Pub. Health Rep., Vol. 49, No. 51, Dec. 21, 1934.

TABLE 5.—Percentages of certain groups of homes in Brunswick and Greenville Counties receiving service from the sanitation officer in a 6-month period as estimated from a survey of homes and as obtained from a study of health-department records

Source of data	Percentage of homes seen by the sanitation officer in a 6-month period						
	Total homes in area	Brunswick County homes	Greenville County homes	White homes	Colored homes	Town and village homes	Isolated homes
Survey of homes.....	19	15	26	17	22	21	18
Health department records.....	21	14	32	17	25	38	18

It brings out that in a period of approximately 6 months the sanitation officer went to about 21 percent of the homes in the two counties, inspecting 14 percent of the premises in Brunswick and 32 percent of those in Greenville County. The corresponding percentages obtained from the surveyed sample of families are remarkably similar. The 15 percent found in Brunswick County was practically the same as was shown by the health department records while the 26 percent for Greenville was low.

Both the figures obtained from the health department records and from the survey indicate that the sanitation program emphasized work in the colored homes. Figures from the survey showed that 17 percent of the white and 22 percent of the colored homes were inspected, as compared with the 17 percent and 25 percent, respectively, obtained from the records. Further analysis of the survey data, however, indicates that the work of the sanitation officer was confined largely to homes where privy inspection was needed, practically no visits being made to the large number of homes in the two county seats provided with city water and sewerage. The higher percentage of colored homes receiving service is probably due to the fact that the work of the sanitation officer was confined chiefly to privy sanitation in the towns and villages, and the colored homes in these locations depended almost entirely upon privies for disposal of excreta, whereas many white families had municipal sewerage.

In the surveyed group the percentage of town and village families reporting inspections was 21, as against 38 percent of such families recorded by the sanitation officer. It has previously been noted that a relatively high proportion of the homes in the county seats were included to give a sample of this type of home large enough to compare with isolated homes. The sewer connections were confined to the two county seats, so that this undue weighting of the sample with these homes included many where the sanitation officer would not visit. Other data from the survey indicate that a high percentage of the white families living in the villages other than the county seats reported service from the sanitation officer.

As this paper is meant chiefly to illustrate a method of study that may be useful in appraising the health problems in a rural area, the analysis of the data secured is reserved for later papers. After the limitations of the sample are determined by checks against available figures, the data may serve as a guide for the revision of health-department programs. In the case of the work of the sanitation officer, it makes available data concerning the premises of a cross-section of the population in the area he serves. It points out the type of home where no service is rendered, and describes the facilities for excreta disposal and water supply as found on a group of premises which may serve well to suggest new fields of activity. The adequacy of a nursing program with respect to such problems as communicable diseases and maternity and infancy cases may be revealed by the frequency with which such items are reported where medical and nursing supervision were inadequate or lacking. The economic status and family environment of the homes where such problems appear should in general disclose whether the problem is one of failure to appreciate the need for service or inability to provide it.

In the three counties now being surveyed, the collection of records on the various members of the health department staff has preceded the survey of families. This will give, for the same chronological 12-month period, reports by families of service received and a record of all health department work for the same households. In this way it will be possible to check services given to individuals in the surveyed samples against those reported as received by the families. Such an analysis will afford an index of the reliability of the reports of the families on the various types of service and will, at the same time, make possible the allocation of actual health department records of service to a group of individuals and families whose home environment is known. Such a procedure will make available a complete picture of services rendered by the health department to a group of families representing a cross-section of the whole area.

PUBLIC HEALTH SERVICE PUBLICATIONS

A List of Publications Issued During the Period July-December 1934

There is printed herewith a list of publications of the United States Public Health Service issued during the period July-December 1934.

The most important articles that appear each week in the **PUBLIC HEALTH REPORTS** are reprinted in pamphlet form, making possible a wider and more economical distribution of information that is of especial value and interest to public-health workers and the general public.

All of the publications listed below except those marked with an asterisk (*) are available for free distribution and as long as the sup-

ply lasts may be obtained by addressing the Surgeon General, United States Public Health Service, Washington, D. C. Those publications marked with an asterisk are not available for free distribution but, unless stated to be "out of print", may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C., at the prices noted. (No remittances should be sent to the Public Health Service.)

Periodicals

- Public Health Reports (weekly), July–December, vol. 49, nos. 27–52, pages 782 to 1599.
- Venereal Disease Information (monthly), July–December, vol. XV, nos. 7–12, pages 233 to 407.

Reprints from the Public Health Reports

1633. Effectiveness of filtration in removing from water, and of chlorine in killing, the causative organism of amoebic dysentery. By Bertha Kaplan Spector, John R. Baylis, and Oscar Gullans. July 6, 1934. 16 pages.
1634. Time distribution of common colds and its relation to corresponding weather conditions. By Mary Gover, Lowell J. Reed, and Selwyn D. Collins. July 13, 1934. 14 pages.
1635. Electrocution a new aid in the preparation of mosquito mounts. By C. P. Coogle. July 13, 1934. 3 pages.
1636. Pulmonary infection in pneumoconiosis. I. Bacteriologic and experimental study. By H. O. Proske and R. R. Sayers. July 20, 1934. 20 pages.
1637. Milk-sanitation ratings of cities. Cities for which milk-sanitation ratings of 90 percent or more were reported by the State milk-sanitation authorities during the period July 1, 1932, to June 30, 1934. July 27, 1934. 4 pages.
1638. Studies in chemotherapy. I. The action of sodium formaldehyde sulphoxylate in bacterial infections. By Sanford M. Rosenthal. August 3, 1934. 4 pages.
1639. Heart disease among seamen. By H. Arenberg. August 3, 1934. 9 pages.
1640. Effect on the eye of the yellow light of the sodium vapor lamp. By James E. Ives. August 10, 1934. 9 pages.
1641. Public Health Service publications. A list of publications issued during the period January–June 1934. August 10, 1934. 4 pages.
1642. A review of the Federal civil works projects of the Public Health Service. By C. E. Waller, August 17, 1934. 8 pages.
1643. Tendencies in standards of river and lake cleanliness. By H. W. Streeter. August 24, 1934. 12 pages.
1644. Recent court decisions on milk control. By James A. Tobey. August 24, 1934. 6 pages.
1645. Maximum temperatures and increased death rates in the drought area in 1934. By Selwyn D. Collins and Mary Gover. August 31, 1934. 4 pages.
1646. Child health activities in a State department of health. By Estella Ford Warner. September 7, 1934. 5 pages.
1647. Effect of various amounts of sodium fluoride on the teeth of white rats. By H. Trendley Dean, W. H. Sebrell, R. P. Breaux, and E. Elvove. September 14, 1934. 7 pages.

1648. Mortality rates by occupational class in the United States. By Rollo H. Britten. September 21, 1934. 11 pages.
1649. Whole-time county health officers, 1934. September 28, 1934. 9 pages.
1650. Some findings of the N. O. P. H. N. survey of public health nursing of significance to State health administrators. By Pearl McIver. September 14, 1934. 10 pages.
1651. Experimental studies of natural purification in polluted waters. IX. Nitrification in sewage mixtures. By Emery J. Theriault and Paul D. McNamee. October 5, 1934. 7 pages.
1652. The actual causes of dermatitis attributed to socks. By Louis Schwartz. October 5, 1934. 10 pages; 2 plates.
1653. Sickness among male industrial employees during the second quarter and the first half of 1934. By Dean K. Brundage. October 19, 1934. 4 pages.
1654. Effectiveness and economy of county health department practice. Brunswick-Greenville health administration studies no. 1. Description of study. By Joseph W. Mountin. October 19, 1934. 10 pages.
1655. The Chicago epidemic of amoebic dysentery in 1933. By Herman N. Bundesen. October 26, 1934. 7 pages.
1656. The relation between housing and health. By Rollo H. Britten. November 2, 1934. 13 pages.
1657. The National Leprosarium, Carville, La. Review of the more important activities during the fiscal year ended June 30, 1934. By O. E. Denney. November 16, 1934. 7 pages.
1658. Streptococcus bacteriophage: A study of four serological types. By Alice C. Evans. November 23, 1934. 16 pages.
1659. What every person should know about milk. By Leslie C. Frank. December 14, 1934. 11 pages.
1660. Further studies on growth and the economic depression. A comparison of weight and weight increments of elementary-school children in 1921-27 and in 1933-34. By Carroll E. Palmer. December 7, 1934. 17 pages.
1661. Extent of rural health service in the United States, January 1, 1930-December 31, 1933. December 7, 1934. 16 pages.
1662. The distribution of immunity against encephalitis virus of the St. Louis type in the United States as determined by the serum-protection test in white mice. By J. G. Wooley and Charles Armstrong. December 14, 1934. 11 pages.
1663. Job analysis of a rural sanitation officer. Brunswick-Greenville health administration studies no. 2. By J. O. Dean and Joseph W. Mountin. December 21, 1934. 14 pages.
1664. The official United States and international unit for standardizing gas-gangrene antitoxin (vibron septique). By Ida A. Bengtson. December 28, 1934. 13 pages.

Supplements to the Public Health Reports

111. Citations to public health laws and regulations, 1931. 1934. 32 pages.
112. The notifiable diseases. Prevalence in States, 1933. 1934. 12 pages.

Reprint from Venereal Disease Information

48. Lymphogranuloma inguinale. By Leroy E. Burney. Vol. XV, no. 7. 11 pages.

Public Health Bulletins

211. Studies in asphyxia. I. Neuropathology resulting from comparatively rapid carbon-monoxide asphyxia. II. Neuropathology resulting from comparatively slow carbon-monoxide asphyxia. III. Neuropathology resulting from comparatively slow carbon-monoxide asphyxia; reaction during 16 to 165 days after exposure. IV. Neuropathology resulting from comparatively rapid asphyxia by atmospheres deficient in oxygen. V. Blood chemistry changes resulting from comparatively rapid asphyxia by atmospheres deficient in oxygen. VI. Blood chemistry of dogs after comparatively rapid carbon-monoxide asphyxia. By W. P. Yant, John Chornyak, H. H. Schrenk, F. A. Patty, and R. R. Sayers. August 1934. 61 pages.
212. Leprosy. Observations on its epidemiology in Hawaii. By N. E. Wayson and Theodore R. Rhea. September 1934. 32 pages.
213. Epidemiological study of plague in the Hawaiian Islands. By C. R. Eskey. October 1934. 70 pages.

Annual Report

*Annual report of the Surgeon General of the United States Public Health Service for the fiscal year 1934. 143 pages.

Unnumbered Publications

Index to Public Health Reports, vol. 49, part 1 (January-June 1934). 1934. 24 pages.

COURT DECISION ON PUBLIC HEALTH

Salary of county health officer.—(New Mexico Supreme Court; *State Bureau of Public Health et al. v. Board of Com'rs of San Miguel County*, 38 P.(2d) 1111; decided December 6, 1934). Doctor Howe had served as health officer of San Miguel County for several years at a salary of \$150 per month. On August 1, 1931, he resigned after the county commissioners had adopted a budget for the fiscal year beginning July 1, 1931, which provided that the health officer's salary should be \$300 per annum. This salary was raised to \$600 on July 7, 1931, by the tax commission. Doctor Fleming was then appointed as health officer by the county commissioners, but his designation never received the approval of the State board of public welfare. On November 9, 1931, the State director of public health, with the approval of the State board of public welfare, appointed Doctor Kaser as health officer, and, having paid him at the rate of \$150 per month for several months, the State health authority sued to recover the amount from the county. In the trial court recovery was had on the basis that the salary properly payable was \$50 per month, and an appeal was taken to the supreme court.

The plaintiff relied on the provision that the State health authority, in case of vacancy, should appoint a health officer "at a compensation not to exceed the compensation paid to the previous incumbent."

The supreme court pointed out that the lower court had refused "to find that the former incumbent, Doctor Howe, 'was drawing a salary of \$150 per month at the date of his said resignation' and refused to find that 'the appointment of Doctor Kaser was at the same salary as the previous incumbent.'" In affirming the trial court's judgment the appellate court said:

The rulings are supported by the theories that the making of the estimate by the county board on June 22, 1931, was in legal effect a fixing of the compensation for the ensuing fiscal years; that the same took effect July 1, 1931, subject to change by the tax commission; that Doctor Howe's legal salary, beginning July 1st, was as thus tentatively fixed; and that it became \$50 per month when the tax commission, on July 7th, having raised the item to that figure, approved the budget.

DEATHS DURING WEEK ENDED JAN. 26, 1935

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

	Week ended Jan. 26, 1935	Correspond- ing week, 1934
Data from 86 large cities of the United States:		
Total deaths.....	8,973	8,757
Deaths per 1,000 population, annual basis.....	12.5	12.2
Deaths under 1 year of age.....	541	568
Deaths per 1,000 population, annual basis, first 4 weeks of year.....	50	52
Deaths per 1,000 population, annual basis, first 4 weeks of year.....	13.3	12.6
Data from industrial insurance companies:		
Policies in force.....	67,084,807	67,571,562
Number of death claims.....	14,612	14,695
Death claims per 1,000 policies in force, annual rate.....	11.4	11.3
Death claims per 1,000 policies, first 4 weeks of year, annual rate.....	11.0	11.0

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

Reports for Weeks Ended Feb. 2, 1935, and Feb. 3, 1934

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Feb. 2, 1935, and Feb. 3, 1934

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934
New England States:								
Maine	2	2	1	1	100	1	0	1
New Hampshire					3	228	0	0
Vermont					25	26	0	0
Massachusetts	5	12			360	2, 228	1	2
Rhode Island	2	1		1	34	2	0	0
Connecticut	7	3	80	4	558	34	0	1
Middle Atlantic States:								
New York	49	55	1 28	1 24	1, 091	717	5	3
New Jersey	15	27	35	32	156	223	3	1
Pennsylvania	36	100			2, 126	1, 743	6	3
East North Central States:								
Ohio	77	63	324	121	775	383	12	1
Indiana	41	40	125	88	383	702	0	2
Illinois	46	33	146	17	2, 020	337	9	9
Michigan	7	12	61	2	463	43	1	0
Wisconsin	6	6	539	73	965	806	3	2
West North Central States:								
Minnesota	4	8	3		2, 222	164	1	0
Iowa	11	12	61	15	1, 132	49	2	0
Missouri	39	51	463	15	468	1, 120	13	2
North Dakota	1	2	31	5	83	130	0	0
South Dakota	2	1				579	1	0
Nebraska	11	15	20	35	274	88	5	0
Kansas	8	7	48	3	981	52	1	1
South Atlantic States:								
Delaware	1	4			2	213	0	0
Maryland ¹	7	12	323	28	43	174	0	1
District of Columbia	7	13	4	1	7	215	18	0
Virginia	22	33			657	675	11	4
West Virginia	12	26	289	101	359	33	1	0
North Carolina ²	5	31	363	68	750	2, 926	3	2
South Carolina	11	9	1, 176	806	40	377	0	0
Georgia ³	8	21	581			938	0	3
Florida ⁴	12	12	47	5	27	63	0	0

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Feb. 2, 1935, and Feb. 3, 1934—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934
East South Central States:								
Kentucky.....	27	51	195	42	384	159	4	1
Tennessee.....	17	11	396	125	25	806	12	2
Alabama.....	9	21	1,380	158	217	204	3	1
Mississippi ¹	7	16					0	1
West South Central States:								
Arkansas.....	5	14	148	38	14	473	4	0
Louisiana.....	36	17	24	10	279	33	1	0
Oklahoma ²	17	38	263	109	69	393	1	1
Texas ³	68	139	744	452	155	991	3	3
Mountain States:								
Montana.....		3	565	42	107	8	3	0
Idaho.....			7		29	97	1	0
Wyoming.....					65	51	2	0
Colorado.....	10	3			1,016	35	1	0
New Mexico.....	5	13	654	1	50	60	0	0
Arizona.....	2	1	250	18	17	21	0	1
Utah ⁴	2	1	2		5	938	1	0
Pacific States:								
Washington.....	1	2	20		146	399	1	3
Oregon.....	1	1	291	26	82	51	1	0
California.....	56	39	565	45	267	1,129	3	5
Total.....	717	961	10,252	2,514	19,031	21,119	127	56

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934
New England States:								
Maine.....	0	1	18	18	0	0	1	2
New Hampshire.....	0	0	18	18	0	0	0	0
Vermont.....	0	0	25	20	0	0	0	0
Massachusetts.....	0	0	183	250	0	0	2	2
Rhode Island.....	0	0	15	15	0	0	0	0
Connecticut.....	0	0	46	68	0	0	0	0
Middle Atlantic States:								
New York.....	0	0	698	726	0	0	9	4
New Jersey.....	0	0	131	178	0	0	9	1
Pennsylvania.....	1	0	536	812	0	0	9	16
East North Central States:								
Ohio.....	1	1	927	823	1	0	1	8
Indiana.....	1	0	276	264	4	0	1	2
Illinois.....	1	2	918	493	4	3	6	6
Michigan.....	0	1	330	466	0	0	3	0
Wisconsin.....	0	0	606	183	18	35	5	2
West North Central States:								
Minnesota.....	0	0	129	67	4	3	2	0
Iowa.....	0	0	71	77	0	9	2	3
Missouri.....	0	1	70	165	1	10	4	1
North Dakota.....	0	0	75	40	0	0	0	0
South Dakota.....	0	0	12	18	2	0	0	0
Nebraska.....	0	0	63	36	49	1	0	0
Kansas.....	0	1	131	146	9	5	3	1
South Atlantic States:								
Delaware.....	0	0	16	19	0	0	0	0
Maryland ¹¹	1	0	116	78	1	0	0	4
District of Columbia.....	1	0	22	14	0	0	1	0
Virginia.....	0	1	46	76	1	0	6	3
West Virginia.....	0	2	133	79	0	4	2	5
North Carolina ²	2	0	31	76	0	0	2	0
South Carolina.....	0	0	8	8	0	0	2	4
Georgia ³	0	0	12	9	0	0	4	10
Florida ⁴	0	0	5	7	0	0	4	1

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended Feb. 2, 1935, and Feb. 3, 1934—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid fever	
	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934	Week ended Feb. 2, 1935	Week ended Feb. 3, 1934
East South Central States:								
Kentucky.....	0	0	88	106	0	1	2	1
Tennessee.....	0	1	26	54	0	0	3	8
Alabama.....	0	0	19	20	1	0	4	4
Mississippi ¹	1	0	22	32	1	2	2	5
West South Central States:								
Arkansas.....	0	0	9	12	0	1	0	1
Louisiana.....	0	1	16	26	3	1	8	7
Oklahoma ²	0	0	17	29	0	0	1	13
Texas ³	2	0	89	145	7	17	17	17
Mountain States:								
Montana.....	0	0	64	25	3	0	1	1
Idaho.....	0	0	10	15	0	1	0	0
Wyoming.....	0	0	34	8	11	5	0	0
Colorado.....	0	1	233	43	5	11	1	0
New Mexico.....	0	0	24	34	0	0	3	3
Arizona.....	0	0	23	1	0	1	0	0
Utah ⁴	0	0	89	7	0	1	0	0
Pacific States:								
Washington.....	1	1	53	46	59	0	4	3
Oregon.....	0	0	58	60	8	7	0	0
California.....	13	3	291	301	9	13	3	6
Total.....	25	17	6,832	6,213	291	131	127	144

¹ New York City only.
² Week ended earlier than Saturday.
³ Typhus fever; week ended Feb. 2, 1935, 14 cases, as follows: Maryland, 1; North Carolina, 1; Georgia, 8; Florida, 1; Texas, 3.
⁴ Delayed reports included.
⁵ Dengue, week ended Feb. 2, 1934, 1 case in Georgia.
⁶ Exclusive of Oklahoma City and Tulsa.

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week.

State	Menin- gococ- cus menin- gitis	Diph- theria	Influ- enza	Malaria	Measles	Pel- lagra	Polio- mye- litis	Scarlet fever	Small- pox	Ty- phoid fever
<i>December 1934</i>										
Arkansas.....					35				16	
Nevada.....		6	47		18		0	18	0	2
Wisconsin.....	9	19	108		1,553		9	1,629	53	3

December 1934

Chicken pox: Cases	Mumps: Cases	Undulant fever: Cases
Arkansas..... 120	Arkansas..... 11	Arkansas..... 2
Nevada..... 50	Wisconsin..... 595	Wisconsin..... 694
Wisconsin..... 2,788	Ophthalmia neonatorum:	Arkansas..... 53
Epidemic encephalitis:	Wisconsin..... 1	Nevada..... 6
Wisconsin..... 1	Trachoma:	Wisconsin..... 694
German measles:	Wisconsin..... 1	
Wisconsin..... 759	Tularaemia:	
	Wisconsin..... 5	

WEEKLY REPORTS FROM CITIES

City reports for week ended Jan. 26, 1935

[This table summarizes the reports received regularly from a selected list of 121 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table. Weekly reports are received from about 700 cities, from which the data are tabulated and filed for reference.]

State and city	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Small-pox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
	Cases	Deaths								
Maine:										
Portland	0	0	1	3	4	0	1	0	5	18
New Hampshire:										
Concord	0	0	0	3	1	0	0	0	0	10
Nashua	1		0		0	0		0	1	
Vermont:										
Barre										
Burlington	0	0	0	0	8	0	0	0	0	9
Massachusetts:										
Boston	1	1	9	26	39	0	5	1	38	265
Fall River	0	0	230	2	1	0	0	0	11	28
Springfield	0	0	24	3	3	0	1	1	3	29
Worcester	0	0	0	6	16	0	1	0	8	70
Rhode Island:										
Pawtucket	0		0		0	0		0	0	13
Providence	4	1	0	10	9	0	3	0	3	83
Connecticut:										
Bridgeport	0	3	1	0	6	10	0	1	0	35
Hartford	0	1	0	132	12	7	0	0	19	65
New Haven	0	9	0	38	1	1	0	0	0	30
New York:										
Buffalo	0	1	3	81	15	88	0	11	0	138
New York	36	17	10	119	172	305	0	88	1	1,570
Rochester	1	0	0	136	3	17	0	1	0	60
Syracuse	0	1	10	1	3	0	0	0	29	41
New Jersey:										
Camden	0	2	0	2	2	5	0	1	0	31
Newark	0	8	1	3	7	9	0	6	0	86
Trenton	1	1	0	29	2	12	0	3	0	36
Pennsylvania:										
Philadelphia	2	20	11	5	42	77	0	19	1	133
Pittsburgh	1	26	7	81	24	38	0	5	0	21
Reading	0	0	0	5	2	6	0	0	0	16
Scranton	0			101		1	0		0	27
Ohio:										
Cincinnati	7		9	2	20	18	0	1	0	7
Cleveland	6	96	4	71	22	35	0	7	0	29
Columbus	6	8	8	43	7	32	0	0	0	5
Toledo	1	3	2	42	6	15	0	9	0	10
Indiana:										
Fort Wayne	5		0	0	9	1	0	0	0	0
Indianapolis	1		2	2	16	23	0	5	0	5
South Bend	0		0	35	4	4	0	1	0	1
Terre Haute	1		0	0	5	1	0	0	0	0
Illinois:										
Chicago	13	11	5	234	70	362	0	39	0	73
Springfield	4		0	3	2	12	0	3	0	8
Michigan:										
Detroit	7	49	3	77	37	103	0	26	0	66
Flint	0	0	0	25	6	18	0	0	0	3
Grand Rapids	0	0	0	26	1	4	0	1	0	7
Wisconsin:										
Kenosha	0	0	0	68	0	32	0	0	0	18
Milwaukee	0	15	5	248	6	320	0	7	0	51
Racine	0	0	0	5	1	4	4	1	0	7
Superior	0		2	10	0	1	0	1	0	0
Minnesota:										
Duluth	0		1	174	4	1	0	0	0	0
Minneapolis	1		4	810	7	21	0	1	1	5
St. Paul	0	1	1	6	8	17	0	2	0	4
Iowa:										
Davenport	0	0	0	9	0	1	0	0	0	0
Des Moines	0	0	0	19	0	4	0	0	0	0
Sioux City	1		1	5	1	0	0	0	0	3
Waterloo	0			20		9	0		0	0
Missouri:										
Kansas City	1	1	1	22	18	7	0	4	0	6
Kansas City	1		1	1	9	1	0	2	0	0
St. Joseph	1		1	1	9	1	0	2	0	0
St. Louis	31	3	3	17	8	17	0	10	0	3

City reports for week ended Jan. 26, 1935—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Small pox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Idaho:											
Boise.....											
Colorado:											
Denver.....	6	20	5	517	9	164	0	6	0	0	92
Pueblo.....	1		0	10	3	5	0	0	0	2	9
New Mexico:											
Albuquerque.....	0		3	17	6	2	0	4	0	9	26
Utah:											
Salt Lake City.....	0		4	3	6	55	0	0	0	30	38
Nevada:											
Reno.....	0		0	1	0	3	0	0	0	0	5
Washington:											
Seattle.....											
Spokane.....	0	2	2	50	2	6	0	1	0	0	34
Tacoma.....	0		2	1	0	1	14	0	0	0	23
Oregon:											
Portland.....	0	5	0	38	5	22	0	2	0	0	85
Salem.....	0	8		0		0	0		0	0	
California:											
Los Angeles.....	17	255	1	13	13	46	3	11	2	12	386
Sacramento.....	9		0	5	5	3	0	1	1	3	46
San Francisco.....	3	6	1	4	14	23	0	11	1	7	179

State and city	Meningococcus meningitis		Polio-myelitis cases	State and city	Meningococcus meningitis		Polio-myelitis cases
	Cases	Deaths			Cases	Deaths	
Massachusetts:				North Dakota:			
Boston.....	0	1	0	Fargo.....	1	0	0
New York:				Maryland:			
Buffalo.....	1	0	0	Baltimore.....	1	1	0
New York:				District of Columbia:			
Philadelphia.....	0	1	0	Washington.....	3	0	1
Pittsburgh.....	1	0	1	Georgia:			
Ohio:				Atlanta.....	1	1	0
Cincinnati.....	4	7	0	Tennessee:			
Indiana:				Memphis.....	5	2	0
Indianapolis.....	0	1	0	Nashville.....	0	2	0
Illinois:				Alabama:			
Chicago.....	3	2	0	Montgomery.....	1	0	0
Michigan:				Arkansas:			
Detroit.....	1	0	0	Little Rock.....	1	3	0
Wisconsin:				Oklahoma:			
Milwaukee.....	1	1	0	Oklahoma City.....	1	0	0
Minnesota:				Tulsa.....	1	0	0
Minneapolis.....	0	0	1	New Mexico:			
Iowa:				Albuquerque.....	1	1	0
Sioux City.....	2	2	0	Oregon:			
Missouri:				Portland.....	0	1	1
St. Joseph.....	1	0	0	California:			
St. Louis.....	4	1	0	Los Angeles.....	0	0	2
				San Francisco.....	0	1	0

Dengue: Miami, 2 cases.

Epidemic encephalitis.—Cases: New York City, 2; St. Paul, 1; Portland, Oreg., 1.

Pellagra.—Cases: Boston, 1; Charleston, S. C., 1; Savannah, 1; San Francisco, 2.

Typhus fever: Savannah, 3 cases.

FOREIGN AND INSULAR

BRITISH WEST INDIES

Barbados—Measles.—On February 1, 1935, 2,000 cases of measles were unofficially reported in Barbados, British West Indies. The disease was said to be mild.

CUBA

Habana—Communicable diseases—1934.—During the year 1934, certain communicable diseases were reported in Habana, Cuba, as follows:

Disease	January-June		July-December		Total	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Malaria.....	142	12	383	22	525	34
Poliomyelitis.....	99	32	101	15	101	15
Typhoid fever.....	99	32	154	40	253	72

NOTE.—The above figures include many imported cases.

GERMANY

Diphtheria.—According to a recent report, the incidence of diphtheria in Germany has been increasing during recent years. About 115,000 cases were reported during 1934, a morbidity rate of 17.3 per 10,000 population. In 1929 there were 7.9 cases of diphtheria reported in Germany per 10,000 population, 11 in 1930, 8.9 in 1931, 10.1 in 1932, and 11.5 in 1933. The mortality was said to be low.

ITALY

Communicable diseases—4 weeks ended July 22, 1934.—During the 4 weeks ended July 22, 1934, certain communicable diseases were reported in Italy as follows:

Disease	June 25-July 1		July 2-8		July 9-15		July 16-22	
	Cases	Com-munes affected	Cases	Com-munes affected	Cases	Com-munes affected	Cases	Com-munes affected
Anthrax.....	20	16	23	20	19	17	33	29
Cerebrospinal meningitis.....	9	9	11	9	9	8	16	14
Chicken pox.....	166	101	193	109	156	85	153	98
Diphtheria and croup.....	312	182	311	179	278	161	327	180
Dysentery.....	28	11	19	15	13	10	32	16
Lethargic encephalitis.....	6	6	2	2	3	3	-----	-----
Measles.....	1,853	372	1,907	406	1,615	336	1,621	360
Poliomyelitis.....	49	34	33	28	32	31	33	28
Scarlet fever.....	213	90	177	85	187	92	197	99
Typhoid fever.....	489	284	561	343	604	334	716	428

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

(NOTE.—A table giving current information of the world prevalence of quarantinable diseases appeared in the PUBLIC HEALTH REPORTS for Jan. 25, 1935, pp. 115-129. A similar cumulative table will appear in the PUBLIC HEALTH REPORTS to be issued Feb. 22, 1935, and thereafter, at least for the time being, in the issue published on the last Friday of each month.)

Plague

Egypt—Girga.—On January 20, 1935, 1 case of plague with 1 death was reported at Girga, Egypt.

Smallpox

Colombia.—During the two weeks ended January 12, 1935, 11 cases of smallpox were reported in Colombia.

India—Cochin.—During the week ended January 19, 1935, two cases of smallpox were reported at Cochin, India.

Yellow fever

Colombia—Intendencia of Meta—Restrepo.—During the week ended January 5, 1935, one death from yellow fever was reported in Restrepo, Intendencia of Meta, Colombia.

Ivory Coast—Dimbokro.—During the week ended January 19, 1935, 1 case of yellow fever with 1 death was reported at Dimbokro, Ivory Coast.

Sierra Leone.—On January 12, 1935, one suspected case of yellow fever was reported at Hill Station in Sierra Leone.